

REMARKS

Claims 1-4, 7 and 11-13 are pending. Claims 1-4 and 7 have been rejected. The Examiner has indicated that Claims 11, 12, and 13 are in condition for allowance in the Office Action mailed on March 27, 2007.

Claim 1 has been amended for clarity. Support for this amendment can be found in the Specification on page 5, line 9 and on page 17, Table 2. Claims 1, 2 and 12 have been amended to correct typographic errors. No new matter has been added by the amendments to the claims.

Claims 1-4, and 7 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Sakuta et al. (US 6,905,993). The Examiner states that Sakuta et al. teaches a stabilized zirconia ceramics with tetragonal crystal structure wherein the ceramics contain 3 mole percent  $Y_2O_3$  and have an average grain size of 0.2 to 0.3  $\mu m$ . The Examiner refers to Examples 4, 6, 8, 11, 12, 13, 16, and 17 in Table 1, columns 11 and 12 of the Sakuta et al. patent as the basis of the rejection. The Examiner further states that Examples 12 and 16 teach materials with grain sizes of 0.21  $\mu m$  or 0.18  $\mu m$  and a density of 5.90 g/cm<sup>3</sup>. Next, the Examiner states that the FWHM properties recited in Claims 1-3 are inherently disclosed in Sakuta et al. The Examiner states that the limitation of Claim 4 is taught in the Sakuta et al. reference. Lastly, the Examiner asserts that Sakuta et al. discloses zirconia sintered body with densities from 6 to 6.1 g/cm<sup>3</sup>.

Applicants respectfully traverse the rejection for the follow reasons:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Prior

art that teaches ranges that are close to, but that does not overlap the recited range in the claim does not anticipate the claimed range. See, M.P.E.P. § 2131.03 (III).

Claim 1 states in relevant part: a zirconia sintered body (1) containing  $\text{Al}_2\text{O}_3$  wherein the weight percent is about 0.5% or less; (2) having a crystal grain size ranges from 0.01 to 0.2 $\mu\text{m}$ ; (3) having a stabilizer in the zirconia sintered body ranging from 2% to 5.25% by weight and wherein the stabilizer is selected from the group consisting of  $\text{Y}_2\text{O}_3$ ,  $\text{CeO}_2$ ,  $\text{TiO}_2$ ,  $\text{Yb}_2\text{O}_3$ ,  $\text{Er}_2\text{O}_3$ , and  $\text{Ho}_2\text{O}_3$ ; and (4) having a density of 6.00  $\text{g}/\text{cm}^3$  or greater.

The Examiner's rejection under 35 U.S.C. § 102(e) relies on Examples 4, 6, 8, 11, 12, 13, 16 and 17 in Table 1 of the Sakuta et al. patent. However, Examples 4, 6, 8, 11, 12, 13, 16 and 17 of the Sakuta et al. patent do not anticipate each limitation of instant Claim 1. Examples 4, 6, 8, 11, 12, 13 and 17 have average crystal grain sizes greater than 0.2 and therefore are not within the range of 0.01-0.2 as recited in instant Claim 1. This leaves Example 16 as the only other option. Example 16 has a density of 5.90 and therefore does not have a density greater or equal to 6.00  $\text{g}/\text{cm}^3$ . Furthermore, Examples 8, 13, and 17 are the only examples that have a weight density greater or equal to 6.00  $\text{g}/\text{cm}^3$ , but the average crystal grain sizes are 0.33 $\mu\text{m}$ , 0.28 $\mu\text{m}$ , and 0.29 $\mu\text{m}$  respectively, and clearly do not fall within the range of 0.01 $\mu\text{m}$  to 0.2 $\mu\text{m}$ . As such, the invention described in Sakuta et al. does not anticipate Claim 1. Claims 2-4 and 7 are not anticipated because said claims depend from Claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the


AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q79955  
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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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